



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

November 7, 2002

James Shafer, Remedial Project Manager
U.S. Department of the Navy
Naval Facilities Engineering Command
Northern Division
10 Industrial Highway
Code 1823, Mail Stop 82
Lester, PA 19113-2090

Re: Additional comments on the Phase II Predesign Investigation for the Old Fire Fighting Training Area

Dear Mr. Shafer:

I am writing in response to your request for EPA to review the *Phase II Predesign Investigation for the Old Fire Fighting Training Area*. Detailed comments are provided in Attachment A.

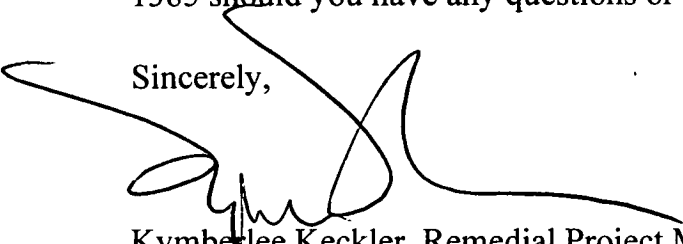
The report implies that the pyrogenic nature of the PAH contamination in the offshore sediment provides evidence that the contamination is not a result of onsite activities but instead a result of offsite drainage. This line of reasoning is not coherent because the activities at the fire training area involved the combustion of petroleum products and would have seemingly resulted in contamination of a pyrogenic nature.

Additional sampling may be required in the areas adjacent to the coast. Sedimentation and dispersion offshore cause dilution, and the offshore samples do not represent site-wide conditions.

Elevated manganese in the groundwater could be an *indirect* site impact, because historical fuel releases could have resulted in anaerobic groundwater conditions associated with degradation of the fuels, and reducing conditions could have caused mobilization of manganese within the aquifer. There is some suggestion that low-ORP groundwater is associated with the central portion of the site on the downgradient (landward) side. However, a correlation of elevated Mn with low ORP is not apparent in the data (*see* attached plot).

I look forward to working with you and the Rhode Island Department of Environmental Management toward the cleanup of . Please do not hesitate to contact me at (617) 918-1385 should you have any questions or wish to arrange a meeting.

Sincerely,



Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Paul Kulpa, RIDEM, Providence, RI
Melissa Griffin, NETC, Newport, RI
David Peterson, USEPA, Boston, MA
Jennifer Stump, Gannet Fleming, Harrisburg, PA

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p.. 2-2, §2.0, ¶3	This paragraph indicates that the presence of high molecular weight PAHs is indicative of pyrogenic sources. The report in Attachment E indicates that higher levels of parent PAHs compared to the corresponding alkylated PAHs is indicative of pyrogenic sources. Please provide a more detailed/comprehensive description of the distinction between pyrogenic and petrogenic sources. All relevant information should be assimilated into a detailed discussion as it is central to the PAH source investigation. Please include a description of the common sources of pyrogenic and petrogenic residues, common characteristics of these sources and, where possible, a rationalization of the characteristics (<i>e.g.</i> , are alkylated PAHs less abundant in pyrogenic sources because they are more easily combusted than the aromatic rings?). Also please include appropriate references.
p. 3-4, §3.0	Table 3-2 would be more informative if it were to include a column showing the type of well (<i>e.g.</i> , water-table, deep overburden, bedrock), or at least a footnote defining the nomenclature adopted (<i>e.g.</i> , “R”, “S”, and “D”).
p. 3-6, §3.1	Samples SO-11 and SO-15 were targeted at contaminated soils confirmed by previous test pitting. What steps were taken to ensure that the samples were not collected from backfill from the former test pit, rather than from undisturbed soil?
p. 3-8, §3.2	Appendix C contains the field data sheets. It is curious to note that the purge for MW-2S was accompanied by a dramatic rise in ORP, from -146 mV to +4 mV. In contrast, ORP at MW-10S dropped dramatically from +243 mV to -73 mV. These two wells appear to be in very similar settings, located adjacent to the shoreline, and screened in the same interval. How do you explain this striking contrast in behavior?
P. 4-1, §4.1, ¶4&5	These paragraphs characterize the samples from SD-410 and OFF-5 as being consistent with “urban runoff.” What is the basis for classifying the catch basin samples as “urban runoff?” Please clarify this issue and provide references.
Figure 3-1	Sample AQ11 does not appear to be shown in the Figure. Please enhance Figure 3-1.

